Preventing and Treating Overweight Through Education and Tailored Intervention

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Introduction

The move to more tailored nutrient and food intakes to match one's health needs and goals has been termed "nutritional individualization" or "personalized nutrition." Factors driving this movement include accumulating research on specific health benefits of certain foods for certain segments of the population, genetics research, and consumers' expectations that their diet be customized to meet their specific lifestyle, preferences and disease risk. In the past, efforts were made to utilize the most recent health and nutrition information to improve the health of populations. With the recent advance of technology, genetics and nutritional research, as well as the growing diversity of our food supply, optimizing the health of individuals has become an attainable goal.1 Optimizing health and delaying onset or minimizing symptoms of various chronic diseases should be seen as a goal for all individuals across age, gender, socioeconomic, ethnic and cultural groups.

Obesity is one area where such an individualized approach would be particularly useful. The multifaceted causes of obesity suggest that strategies to prevent and treat the condition be versatile and linked to an individual's specific situation. A conference was convened where key leaders in the health and nutrition arenas met to discuss and develop strategies that would advance this individualized approach in the prevention and treatment of obesity. The full proceedings of this conference will be published in Nutrition Today (pending). This was a subsequent conference to one convened two years prior on the topic of individualized nutrition recommendations and food choices.2 What follows are ten tenets, developed out of the discussion at the recent conference, upon which health professionals can base their interventions and recommendations when working with clients who are attempting to improve their health and/or manage their body weight more successfully.

Tenets

- 1. Obesity is a multi-disciplinary issue. Population-wide decreases in physical activity (recreational and occupational), as well as increases in energy density, portion size, and availability of foods have all been implicated in this escalating health issue. The multi-factorial causes of obesity imply that successful prevention and treatment will depend upon measures taken by various stakeholders (individuals, clinicians and other health professionals, public health groups, and the government) and will involve many tactics. The individual, environmental and societal levels must be considered in a complementary fashion. Setting appropriate and realistic weight goals, defining individual behavior goals for achieving those weight goals, and providing environmental and societal support all play integral roles in the short- and longterm success of weight management. Health professionals are in a position to help their client initiate the process in a manner that meets his/her needs, follow through with appropriate guidance and support, and recruit the client's external contacts (family, friends, co-workers) as needed for assistance. It may also be necessary to bring in health care professionals from related disciplines (therapists, psychologists, personal coaches and trainers, sociologists, behavior scientists) to provide a multi-disciplinary team approach.
- 2. Intervention needs to start early. Health professionals are trained to intervene when certain factors fall outside the "normal" level. Iron-deficiency anemia, hypertension and hypercholesterolemia are all conditions easily recognized by simple biomarkers which indicate appropriate intervention. We as health care professionals, however, have been cautious when it comes to overweight and obesity. Fear of embarrassing the client, of overstepping the bounds as health professionals, and of not knowing the appropriate intervention or referral systems are some of the barriers. Increased awareness of our clients' body weight gain

and loss patterns, coupled with aggressive intervention are critical to helping them keep their weight in check. Becoming familiar with referral sources for treating overweight, whether group settings or one-on-one counseling with a weight-management dietitian, will also help guide clients in the appropriate direction. In youth, the first step in prevention and treatment is identifying the overweight child, defined as having a BMI greater than the 95th percentile.³ Once in a treatment program, each child's growth rate should be closely tracked and compared only with himself or herself rather than with statistical cut-off points. Appropriate action should be taken when growth acceleration – abnormal upward weight divergence for the individual – occurs.⁴

- 3. Identifying and using motivators will enhance success. Clients will have different motivators to improve their diet and lifestyle based on their beliefs, habits, preferences, cultural and societal pressures amongst a myriad of other factors. Identifying a client's primary motivators and tapping into those may greatly increase the ability to induce and sustain behavior change. For many, overweight is all about how one looks and how one's clothes fit; this can be sufficient motivation to lose excess pounds and/or maintain a desired body weight. For others, serious health issues related to overweight may be the trigger for them to improve their health habits. Although the goal of establishing healthier habits is the same, messages developed and tailored to the needs and motivational factors of a client (or subgroup of individuals) will optimize the effectiveness of the intervention.
- **4. Small steps work.** In spite of popular belief, major changes in lifestyle are not needed to more successfully manage one's body weight. Small, achievable steps can have a huge impact. Communicating this to clients will bring the daunting task of weight maintenance into the realm of the feasible for many. The average weight gain for adults 1–2 lbs per year can be avoided by consuming 100 kcal per day less, or burning 100 kcal per day more through activity.⁵ Teaching cognitive control to people, based on the energy balance defined for that individual, will increase the effectiveness of these weight maintenance strategies. For treatment of overweight, more intensive efforts may be needed.

- 5. Simple messages will help accomplish goals. The National Cholesterol Education Program (NCEP) enjoyed considerable success with the campaign aimed at educating people to "Know your (cholesterol) number." Developing a mass marketing campaign around body weight, such as "Know your waist" or "Know your BMI" could be equally as effective in teaching the consumer about the link between body weight and overall health. "Take 2000 more steps (about 1 mile)" and "Eat 100 fewer calories" are simple messages used by America On the Move® to prevent weight gain. Using language the layperson will embrace and understand and setting achievable goals specific to the individual are critical to success.
- **6. Portion size should be taught.** In our "supersized" society, it has become expected that restaurants and take-out establishments will serve over-sized portions. The use of the term "value meals" taps into our strong urge to get a good deal. Consumers see value in more for less. Not only does this lead to overindulging beyond caloric needs, but it fosters the expectation that portions should be super-sized, even at home. The consumer needs to be educated on what a healthy portion size is, and also how to tune in to the physical cues of satiation. Portion education is particularly effective if one can compare a healthy portion to something commonly known; for example, a 3-ounce serving of meat is the size of a deck of cards; a 1-ounce piece of cheese is the size of a domino. Using common household measures (cups, tablespoons, teaspoons) can be effective in teaching portion control. The simple process of reading package labels should be encouraged to identify the serving size and number of servings per container. Applied to restaurant eating, this concept may lead to sharing entrees and desserts and taking home uneaten portions – behaviors that will reduce the calories consumed as long as overeating at another occasion does not occur.
- 7. Nutrient density should be acknowledged. Eating foods with a high energy density, or keal per unit weight, is believed by many to have contributed to the obesity epidemic. Foods with a high energy density are often an efficient, inexpensive and appealing way to consume calories. Because energy dense foods are not always satiating, however, a diet based on these foods can lead to over-consumption of calories. Some foods such as cheese, nuts and meats may be energy-dense but also a rich source of key

nutrients. To determine the appropriate amounts of such foods that should be incorporated into one's diet, overall energy and nutrient intakes should be assessed. To avoid a "good food – bad food" war, focus should be on overall diet rather than on single foods. Consumers should be taught to factor energy density, nutrient density, nutrient needs and cost into food choices.

- 8. Personal responsibility and the environment need to work hand-in-hand. In an era where fast food restaurants, the food industry and agriculture are often mentioned as contributing to the obesity epidemic, our society has largely lost the concept of personal responsibility as a key approach to maintaining health. As a society we place a high value on a wide selection, accessibility and affordability of foods. With the variety of foods available in the marketplace today, consumers are faced with more food choices for themselves and their families than ever before. Nutrition education plays an integral role in helping the consumer make appropriate choices for their health and well-being and that of their family members. Without the knowledge of how to make effective and suitable choices to meet their specific needs and goals, the consumer is bound to make selections based on perhaps cost or taste alone, without assessing other factors such as health and disease prevention.
- 9. Prevention of weight gain and/or maintenance of weight loss are the ultimate goals. Because changing behavior is easier than maintaining that behavior change, most people are not successful in keeping the weight off that they have worked hard to lose. Providing clients with the skills to manage their weight through individualized exercise and diet

is the key to long-term success. In the National Weight Control Registry (NWCR) of 3000 "successful losers" who lost 30 lbs and kept it off for at least one year, a commitment to a low-fat diet, eating breakfast regularly, high daily levels of physical activity and frequent self-monitoring were important components of that maintenance. Changes to our societal infrastructure can help enhance weight loss maintenance. Incorporating physical activity programs back into schools; providing sidewalks, parks, recreation facilities and safe areas for children to play; convincing corporate America of the economic incentives to having healthy, active employees – all are environmental factors supporting a healthy lifestyle which includes weight management.

10. Education-based behavior change approaches and public policy are complementary. Solutions to obesity often center on legislative and policy interventions designed to create healthy eating and activity environments. Recently, regulating food items in schools has been a popular way to steer children's and adolescents' food choices in a more healthful direction. Children and adolescents will invariably have the opportunity to make choices of their own accord, however, and should be armed with nutrition information - and be informed of the consequences of diet selections – in order to make appropriate and healthful food choices. Utilizing a combination of both policy-related approaches and long-term education-based, behavior-change approaches will be the most effective way to promote health across all ages. Successful weight management is a combination of lifestyle, behavior and environment, and thus interventions must encompass all of these areas.

References

¹Coulston AM, Feeney MJ, Hoolihan LE. Commentary: The Challenge to Customize. *J Amer Diet Assoc* 2003 Vol 103(4):443-444.

²Hoolihan LE. Individualization of nutrition recommendations and food choices: the future of nutritional sciences. Proceedings of a conference. *Nutrition Today* 203, Vol 38(6):225-231.

³Barlow SE, Dietz WH. Obesity evaluation and treatment: expert committee recommendations. *Pediatr* 1998;102:E29.

⁴Satter E. Eating management to prevent and treat child overweight. *Health at Every Size*, March/April 2004.

⁵Hill, J.O., Wyatt, H.R., Reed, G.W. and Peters, J.C. Obesity and the environment: Where do we go from here? *Science* 299:853-855, 2003.

⁶America on the Move website: www.americaonthemove.org. Accessed June 24, 2004.

⁷National Weight Control Registry website: http://www.uchsc.edu/nutrition/WyattJortberg/nwcr.htm. Accessed September 16, 2004.

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